

S2 Table.

Similarity evaluation

INPUT: a dataset, D, with A features (autoantigens) and N instances ($n_{AIH}=15$ and $n_{HD}=78$ measurements).

R is the number of reduced subsets

For each run $i, i=1,2,\dots,R$

- (1) randomly partition data into reduced subsets D_i including all positive instances ($n_{AIH}=15$) and a set of negative instances ($\tilde{n}_{HD}=24$)
- (2) perform feature selection
 - (i) train y classifiers ($y=2$) with a *10 fold cross-validation* on the reduced subset
 - (ii) obtain a ranked list L_{iy}

End

Finally, calculate all pairwise similarity comparison ($R(R-1)/2$ possible comparisons) and averaged them to obtain an overall evaluation of the degree of similarity, S , between the autoantigen lists

OUTPUT: similarity index S_{tot} for each considered classifier
